NOV 10 1993

GRIFFIN INTERNATIONAL INC

November 9, 1993

Mr. Dennis Boise
Champlain Oil Company
P.O. Box 2126
South Burlington, VT 05407

RE: Petroleum Contamination at Ballard's Store (VT DEC site #93-1409)

Dear Mr. Boise,

Enclosed is the report on the investigation of subsurface petroleum contamination at the above referenced location.

Please call me with any questions that you may have regarding the report.

Sincerely

Laurie T. Reed

Laurie T. Reed
Staff Geologist

c: Chuck Schwer, VTDEC

2B Dorset Lane • Williston, VT 05495 • 802-879-7708

SITE ASSESSMENT REPORT
FOR
BALLARD'S STORE
HINESBURG, VERMONT
VTDEC SITE #93-1409

NOVEMBER 9, 1993

Prepared for:

Champlain Oil Company
South Burlington, VT

Prepared by:

Griffin International, Inc.
2B Dorset Lane
Williston, VT 05495
(802) 879-7708

Griffin Project # 6934380

TABLE OF CONTENTS

I. INTRODUCTION

On June 19, 1993, Griffin International, Inc. (Griffin) inspected the removal of three underground storage tanks (UST) at Ballard's Store in Hinesburg. The old tanks and replacement tanks are owned by Champlain Oil Company (COCO). During the tank removal, subsurface petroleum contamination was detected. Approximately 60 cubic yards of this soil was removed, stockpiled on-site and encapsulated with polyurethane. Further investigations were requested by the Vermont Department of Environmental Conservation (VTDEC) to determine the extent and degree of subsurface contamination. Griffin submitted to the VTDEC a Cost Estimate and Work Plan to conduct a site assessment at Ballard's Store.

This plan was approved by the VTDEC Sites Management Section on August 9, 1993. Champlain Oil Company retained the services of Griffin to perform the site assessment per the approved Work Plan. This report details Griffin's investigation, including conclusions and recommendations.

II. SITE DESCRIPTION

The Ballard's Store site is located on Shelburne Falls Road, just west of the intersection with Route 116 (or Hinesburg Road) in Hinesburg. This area contains a mix of commercial, agricultural and residential properties. The topography of the site is generally flat. Drainage at the site flows to a swale located on the north and west perimeter of the area. Drainage flows westward in the swale before the swale bends and the flow becomes southerly.

The Ballard's store has its own drinking water supply well which also supplies the adjacent hardware store, bank, restaurant, dental office, and retail meat store, located to the north east of Ballard's. The well is under natural positive pressure, and water flows from the well head. The well is drilled into bedrock mapped as Winooski Dolomite on the Geologic Map of Vermont. The Dolomite is overlain by silt and clay.

III. INVESTIGATIVE PROCEDURES

To further define the extent and degree of subsurface contamination, Griffin collected water samples from an on-site supply well and four monitoring wells that were installed by COCO before and during the tank removal in June, 1993.

Griffin also surveyed the site to provide locations and elevations of major site features including buildings and monitoring wells. This data is plotted on the enclosed site maps in Appendix A and will be used to help define the present contamination and predict its impact on potential local receptors.

A. GROUNDWATER SAMPLING AND ANALYSIS

On June 18, 1993, Griffin collected a water sample from the supply well for the store. This sample was collected from the sink inside the Deli. Analysis of the water sample showed no detectable contaminants.

On August 24, 1993, Griffin discovered three of the monitoring wells at the site were either destroyed or paved over. Griffin collected water samples from the remaining monitoring wells MW1, MW3, MW4, and MW5, plus three quality control and quality assurance samples. The samples were collected using Griffin's sampling protocol and analyzed using EPA Method 602 which tests for benzene, toluene, ethylbenzene, and xylene (BTEX compounds) and methyl tertiary butyl ether (a gasoline additive). No contaminants were detected in MW1. The samples collected from MW3, MW4, and MW5 did contain elevated concentrations of benzene and MTBE above the Vermont Drinking Water Standards. The results of water quality analysis are summarized in Table 1 along with Vermont Drinking Water Standards. The laboratory results are included in Appendix D.

Duplicate, trip blank and equipment blank samples indicate that QA/QC (quality assurance and quality control) was maintained during sampling, transportation and analysis. The QA/QC test results are also included in this report.

B. GROUNDWATER DIRECTION AND GRADIENT

During the site visit on August 24, Griffin measured the depth to the water table in each well prior to sampling. The elevations are based on arbitrary datum by assigning an elevation of 100 feet to the top of the casing of MW1. These measurements are shown in the Liquid Level Data Summary in Appendix C. The data was used to construct a groundwater contour map (Appendix A.) The Groundwater Contour Map indicates groundwater apparently flows towards the east. The gradient is calculated to be 1.0 percent. This slight gradient and low estimated permeability likely result in a relatively slow rate of groundwater flow.

IV. RECEPTOR SURVEY

Griffin conducted a visual survey of the site in order to identify potential receptors of subsurface petroleum contamination. Potential receptors include the Ballard's Store, the supply well on the north side of the building, and the drainage swale, also on the north side of the building. This swale drains to a tributary which discharges to the LaPlatte River, about 1/2 mile southwest of the site.

V. RISK ASSESSMENT

Ballard's building does not appear to be at risk of petroleum contamination because of it's on-grade slab construction. Other buildings in the area are either up-gradient or too far away to likely be impacted. The water supply well has not been impacted by the contamination. This well is under positive pressure, and water flow is common from the well head. This suggests that surface water in the area would not recharge into the bedrock, therefor contamination of the bedrock is unlikely. The drainage swale did not show any evidence of petroleum contamination.

Table 1

Groundwater Quality Summary
Ballard's Store
Hinesburg, Vermont

Monitoring Well: MW-1

PARAMETER	Date of Sample Collection				Vermont Drinking Water Standard
		8/24/93			
Benzene		ND			5.0*
Chlorobenzene		ND			100**
1,2-DCB		ND			-
1,3-DCB		ND			-
1,4-DCB		ND			-
Ethylbenzene		ND			680**
Toluene		ND			2420**
Xylenes		ND			400**
Total BTEX		ND			-
MTBE		ND			40**
BTEX + MTBE		ND			-

Monitoring Well: MW-3

PARAMETER	Date of Sample Collection				Vermont Drinking Water Standard
		8/24/93			
Benzene		ND			5.0*
Chlorobenzene		ND			100**
1,2-DCB		ND			-
1,3-DCB		ND			-
1,4-DCB		ND			-
Ethylbenzene		ND			680**
Toluene		2.0			2420**
Xylenes		5.5			400**
Total BTEX		7.5			-
MTBE		12400			40**
BTEX + MTBE		12407.5			-

Monitoring Well: MW-4

PARAMETER	Date of Sample Collection				Vermont Drinking Water Standard
		8/24/93			
Benzene		84.4			5.0*
Chlorobenzene		ND			100**
1,2-DCB		ND			-
1,3-DCB		ND			-
1,4-DCB		ND			-
Ethylbenzene		ND			680**
Toluene		11.3			2420**
Xylenes		13.6			400**
Total BTEX		109.3			-
MTBE		1470			40**
BTEX + MTBE		1579.3			-

All values reported in ug/L
ND - None Detected
TBQ - Trace, Below Quantitation Limits

* - Maximum Contaminant Level
**-Health Advisory Levels

Groundwater Quality Summary
Ballard's Store
Hinesburg, Vermont

Monitoring Well: MW-5

PARAMETER	Date of Sample Collection				Vermont Drinking Water Standard
		8/24/93			
Benzene		17.1			5.0*
Chlorobenzene		ND			100**
1,2-DCB		ND			-
1,3-DCB		ND			-
1,4-DCB		ND			-
Ethylbenzene		ND			680**
Toluene		7.7			2420**
Xylenes		7.0			400**
Total BTEX		31.8			-
MTBE		2140			40**
BTEX + MTBE		2171.8			-

All values reported in ug/L
ND - None Detected
TBQ - Trace, Below Quantitation Limits

* - Maximum Contaminant Level
**-Health Advisory Levels

Due to the groundwater flow direction away from these potential receptors, it is unlikely that they will be impacted by the contaminants.

VII. CONCLUSIONS

Based on our investigations, Griffin has reached the following conclusions:

1) During a routine UST replacement on June 14 and 15, contaminated soils were detected in the vicinity of the old tank pit. The source was attributed to a leak in the old piping from the tanks to the pumps. The replacement of the USTs, pumps and piping has removed the probable active sources of subsurface petroleum contamination.

2) Residual dissolved phase contamination is present in the groundwater as indicated by the results of the sample analyses. Some concentrations of petroleum compounds are above the Vermont Drinking Water Standards in three of the four wells that were sampled on August 24, 1993.

3) Water quality results indicate that contamination appears to be highest in the vicinity of the former USTs and slightly downgradient. However, MW1, located furthest downgradient, did not contain any petroleum contamination.

4) No free phase product was found at the site. VOC concentrations in the soils excavated during the removal of on-site USTs averaged 14.5 ppm with a peak detection of 70 ppm.

5) The potential receptors listed above do not appear to be at risk from the residual contaminants.

6) Removal of approximately 60 cubic yards of contaminated soils resulted in the removal of a significant portion of contamination.

7) Over time, the natural processes of dilution, volatilization and biodegradation should result in a reduction of contamination concentrations to below detectable limits.

RECOMMENDATIONS

1) Due to the concentrations of subsurface petroleum contamination, the groundwater flow direction, and the lack of significant risks to potential receptors, Griffin recommends monitoring the site to track the migration and reduction of the contamination. Presently we recommend resampling the same on-site monitoring wells on an annual basis and the supply well on a bi-annual basis and performing EPA Method 602 analyses of these samples to determine the concentrations of BTEX and MTBE. The supply well should be sampled again in December 1993, the monitoring wells should be sampled in August 1994. Once a downward trend in contamination concentrations is identified and the contaminant levels fall below the Vermont Drinking Water Enforcement Standards, we will recommend site closure.

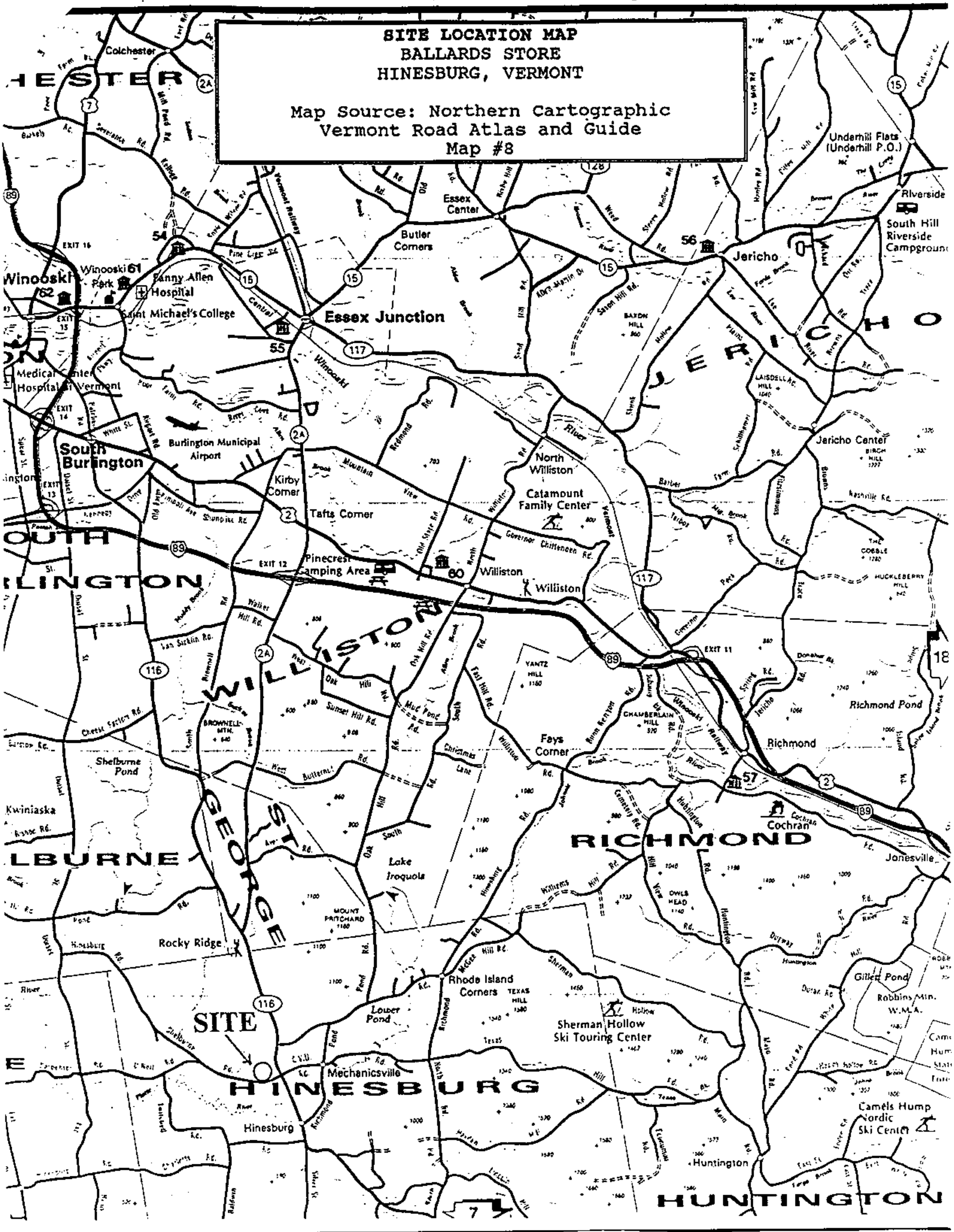
2) Representative soil samples should be collected with a hand auger from the stockpile, now located on site, and screened with a PID on a bi-annual basis. The results of these inspections will assist in documenting the reduction of contamination over time. When the stockpiled soils are shown to contain VOC concentrations less than 5 ppm, we will recommend that they be used on site for backfill or returned to grade and seeded in accordance with state regulations.

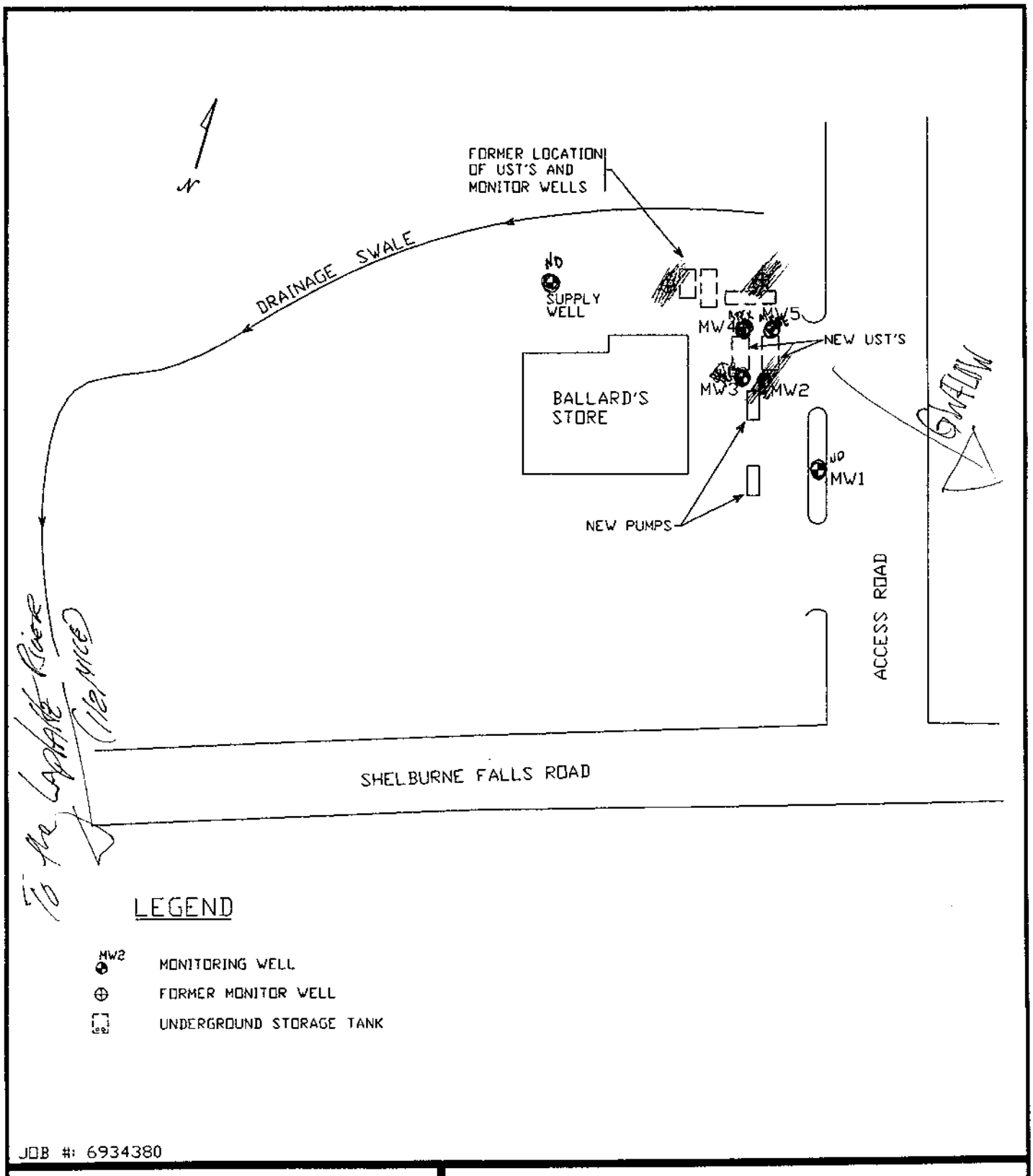
APPENDIX A

Site Location Map
Site Map
Groundwater Contour Map

SITE LOCATION MAP
BALLARDS STORE
HINESBURG, VERMONT

Map Source: Northern Cartographic
Vermont Road Atlas and Guide
Map #8





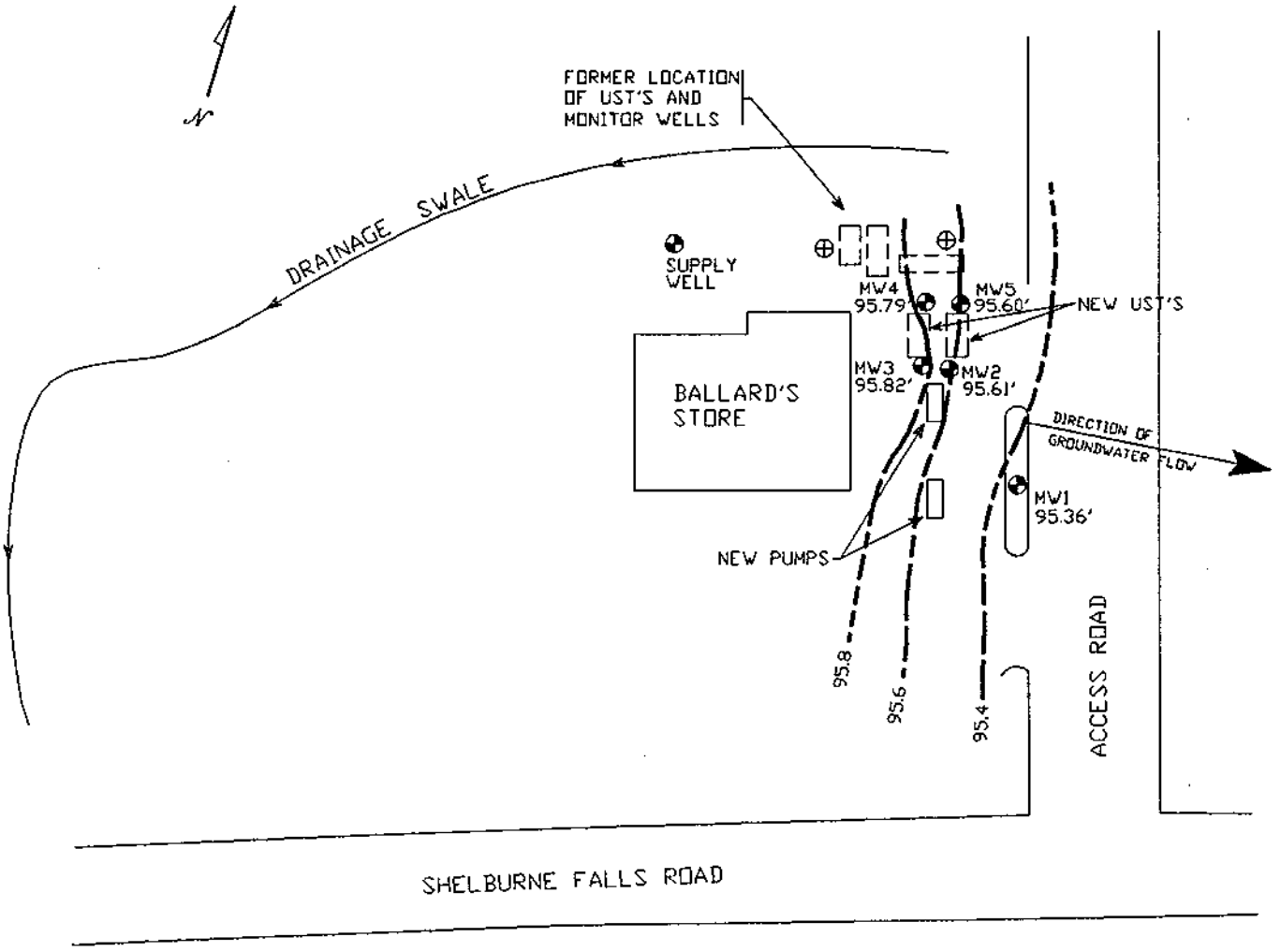
JOB #: 6934380

BALLARD'S STORE

HINESBURG, VERMONT

SITE PLAN

DATE: 10/11/93	DWG.#: 1 of 3	SCALE: 1"=60'	DRN.: SB	APP.: PM



LEGEND

- MW2 — MONITORING WELL
- ⊕ — FORMER MONITOR WELL
- UNDERGROUND STORAGE TANK
- GROUNDWATER CONTOUR LINE

JOB #: 6934380

BALLARD'S STORE

HINESBURG, VERMONT

GROUNDWATER CONTOUR PLAN

DATE: 10/11/93	DWG.#: 3 of 3	SCALE: 1"=60'	DRN.: SB	APP.: PM

APPENDIX B

Typical Monitoring Well Construction

WELL NUMBER TYPICAL

PROJECT Ballard's Store

LOCATION Hinesburg, Vermont

DATE DRILLED 6/93 TOTAL DEPTH OF HOLE 13'

DIAMETER N\A

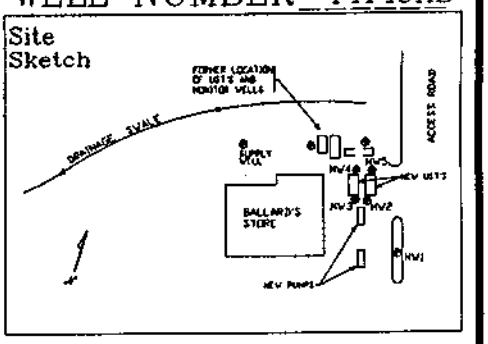
SCREEN DIA. 4" LENGTH 10' SLOT SIZE

CASING DIA. 4" LENGTH 3' TYPE sch 40 pvc

DRILLING CO. T.L. Boise DRILLING METHOD Back Hoe

DRILLER Tom Boise LOG BY P. MURRAY

Site Sketch



GRIFFIN INTERNATIONAL, INC

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0		ROAD BOX LOCKING WELL CAP			0
1		CONCRETE			1
2					2
3		WELL RISER	N\A		3
4					4
5					5
6		BACKFILL		Pea Stone backfill	6
7					7
8					8
9		WELL SCREEN			9
10					10
11					11
12		BOTTOM CAP			12
13		UNDISTURBED NATIVE SOIL		END OF EXPLORATION AT 13'	13
14					14
15					15
16					16
17					17
18					18
19					19
20					20
21					21
22					22
23					23
24					24
25					25

APPENDIX C

Liquid Level Data

Liquid Level Monitoring Data
Ballard's Store
Hinesburg, Vermont

Monitoring Date:8/24/93

Well I.D.	Well Depth	Top of Casing Elevation	Depth To Product	Depth To Water	Product Thickness	Specific Gravity Of Product	Hydro Equivalent	Corrected Depth To Water	Corrected Water Table Elevation
MW-1	NA	100.00	-	4.64	-	-	-	4.64	95.36
MW-2	NA	98.67	-	3.06	-	-	-	3.06	95.61
MW-3	NA	98.60	-	2.78	-	-	-	2.78	95.82
MW-4	NA	98.47	-	2.68	-	-	-	2.68	95.79
MW-5	NA	98.33	-	2.73	-	-	-	2.73	95.60

NA -Not Available
All Values Reported in feet

APPENDIX D

Laboratory Results

BILLED SEP 1993

ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

REPORT OF LABORATORY ANALYSIS

CLIENT: Griffin International
PROJECT NAME: Ballards
REPORT DATE: September 7, 1993
DATE SAMPLED: August 24, 1993

PROJECT CODE: GIBA1418
REF.#: 50,457 - 50,463

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. Chain of custody indicated samples were preserved with HCl.

All samples were prepared and analyzed by requirements outlined in the referenced method and within the specified holding times. All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced method. Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy was monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits.

Individual sample performance was monitored by the addition of surrogate analytes to each sample. All surrogate recovery data was determined to be within laboratory QA/QC guidelines unless otherwise noted.

Reviewed by,

Harry B. Locker, Ph.D.
Laboratory Director

enclosures

ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ballards
REPORT DATE: September 7, 1993
DATE SAMPLED: August 24, 1993
DATE RECEIVED: August 24, 1993
ANALYSIS DATE: September 4, 1993

PROJECT CODE: GIBA1418
REF.#: 50,457
STATION: Trip Blank
TIME SAMPLED: 7:30
SAMPLER: B. Schuyler

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	1	ND[1]
Chlorobenzene	1	ND
1,2-Dichlorobenzene	1	ND
1,3-Dichlorobenzene	1	ND
1,4-Dichlorobenzene	1	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	10	ND

Bromobenzene Surrogate Recovery: 105%

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 602 – PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ballards
REPORT DATE: September 7, 1993
DATE SAMPLED: August 24, 1993
DATE RECEIVED: August 24, 1993
ANALYSIS DATE: September 4, 1993

PROJECT CODE: GIBA1418
REF.#: 50,458
STATION: MW 1
TIME SAMPLED: 11:30
SAMPLER: B. Schuyler

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	1	ND[1]
Chlorobenzene	1	ND
1,2-Dichlorobenzene	1	ND
1,3-Dichlorobenzene	1	ND
1,4-Dichlorobenzene	1	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	10	ND

Bromobenzene Surrogate Recovery: 110%

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:
1 None detected

ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ballards
REPORT DATE: September 7, 1993
DATE SAMPLED: August 24, 1993
DATE RECEIVED: August 24, 1993
ANALYSIS DATE: September 4, 1993

PROJECT CODE: GIBA1418
REF.#: 50,459
STATION: MW 3
TIME SAMPLED: 11:45
SAMPLER: B. Schuyler

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	1	ND[1]
Chlorobenzene	1	ND
1,2-Dichlorobenzene	1	ND
1,3-Dichlorobenzene	1	ND
1,4-Dichlorobenzene	1	ND
Ethylbenzene	1	ND
Toluene	1	2.0
Xylenes	1	5.5
MTBE	10	12,400.

Bromobenzene Surrogate Recovery: 87%

NUMBER OF UNIDENTIFIED PEAKS FOUND: 8

NOTES:
1 None detected

ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ballards
REPORT DATE: September 7, 1993
DATE SAMPLED: August 24, 1993
DATE RECEIVED: August 24, 1993
ANALYSIS DATE: September 7, 1993

PROJECT CODE: GIBA1418
REF.#: 50,460
STATION: MW 4
TIME SAMPLED: 12:00
SAMPLER: B. Schuyler

Parameter	Detection Limit (ug/L)[1]	Concentration (ug/L)
Benzene	5	84.4
Chlorobenzene	5	ND[2]
1,2-Dichlorobenzene	5	ND
1,3-Dichlorobenzene	5	ND
1,4-Dichlorobenzene	5	ND
Ethylbenzene	5	ND
Toluene	5	11.3
Xylenes	5	13.6
MTBE	50	1,470.

Bromobenzene Surrogate Recovery: 108%

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 Detection limit raised due to high levels of contaminants. Sample run at 20% dilution.

2 None detected

ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ballards
REPORT DATE: September 7, 1993
DATE SAMPLED: August 24, 1993
DATE RECEIVED: August 24, 1993
ANALYSIS DATE: September 7, 1993

PROJECT CODE: GIBA1418
REF.#: 50,461
STATION: MW 5
TIME SAMPLED: 12:10
SAMPLER: B. Schuyler

Parameter	Detection Limit (ug/L)[1]	Concentration (ug/L)
Benzene	5	17.1
Chlorobenzene	5	ND[2]
1,2-Dichlorobenzene	5	ND
1,3-Dichlorobenzene	5	ND
1,4-Dichlorobenzene	5	ND
Ethylbenzene	5	ND
Toluene	5	7.7
Xylenes	5	7.0
MTBE	50	2,140.

Bromobenzene Surrogate Recovery: 120%

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 Detection limit raised due to high levels of contaminants. Sample run at 20% dilution.

2 None detected

ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ballards
REPORT DATE: September 7, 1993
DATE SAMPLED: August 24, 1993
DATE RECEIVED: August 24, 1993
ANALYSIS DATE: September 7, 1993

PROJECT CODE: GIBA1418
REF.#: 50,463
STATION: Equip. Blank
TIME SAMPLED: 12:15
SAMPLER: B. Schuyler

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	1	ND[1]
Chlorobenzene	1	ND
1,2-Dichlorobenzene	1	ND
1,3-Dichlorobenzene	1	ND
1,4-Dichlorobenzene	1	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	10	ND

Bromobenzene Surrogate Recovery: 112%

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:
1 None detected

ENDYNE, INC.

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333

CHAIN-OF-CUSTODY RECORD

007261

Project Name: Ballards Site Location: Hinesburg	Reporting Address: Griffin	Billing Address: Griffin
Endyne Project Number: GIBA1418	Company: Contact Name/Phone #:	Sampler Name: Becca Schuyler Phone #: 879-7708

Lab #	Sample Location	Matrix	GRAB	COMP	Date/Time 8-24-93	Sample Containers No.	Sample Containers Type/Size	Field Results/Remarks	Analysis Required	Sample Preservation	Rush
50,457	Trip Blank	H_2O	X		7:30	2	40mL		602	HCL	
50,458	MW1				11:30						
	~~MW2~~										
50,459	MW3				11:45						
50,460	MW4				12:00						
50,461	MW5				12:10						
50,462	~~Dup~~ Dup. of MW5				12:10						
50,463	Equip. Blank				12:15						

Relinquished by: Signature Becca Schuyler	Received by: Signature Tania M. Chambers	Date/Time 8/24/93 1:25
Relinquished by: Signature	Received by: Signature	Date/Time

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Metals (Specify)	21	EPA 624	26	EPA 8270 B/N or Acid
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	EPA 625 B/N or A	27	EPA 8010/8020
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	EPA 418.1	28	EPA 8080 Pest/PCB
4	Nitrite N	9	BOD_5	14	Turbidity	19	BTEX	24	EPA 608 Pest/PCB		
5	Nitrate N	10	Alkalinity	15	Conductivity	20	EPA 601/602	25	EPA 8240		
29	TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)										
30	Other (Specify):										

ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

REPORT OF LABORATORY ANALYSIS

CLIENT: Griffin International
PROJECT NAME: Ballard's
REPORT DATE: June 21, 1993
DATE SAMPLED: June 18, 1993

PROJECT CODE: GIBL1993
REF.#: 47,774

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. Chain of custody indicated samples were preserved with HCl.

All samples were prepared and analyzed by requirements outlined in the referenced method and within the specified holding times. All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced method. Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy was monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits.

Individual sample performance was monitored by the addition of surrogate analytes to each sample. All surrogate recovery data was determined to be within laboratory QA/QC guidelines unless otherwise noted.

Reviewed by,

Harry B. Locker, Ph.D.
Laboratory Director

enclosures

ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

RECEIVED JUN 2 2 1993

LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ballard's
REPORT DATE: June 21, 1993
DATE SAMPLED: June 18, 1993
DATE RECEIVED: June 18, 1993
ANALYSIS DATE: June 18, 1993

PROJECT CODE: GIBL1993
REF.#: 47,774
STATION: Supply Well
TIME SAMPLED: 9:25
SAMPLER: B. Schuyler

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	1	ND[1]
Chlorobenzene	1	ND
1,2-Dichlorobenzene	1	ND
1,3-Dichlorobenzene	1	ND
1,4-Dichlorobenzene	1	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	5	ND

Bromobenzene Surrogate Recovery: 103%

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

RECEIVED JUN 22 1993

ENDYNE, INC.

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333

4/8 Hour Rush

006343

47774-47775

CHAIN-OF-CUSTODY RECORD

Project Name: Ballards Site Location: Hinesburg, VT	Reporting Address: Griffin	Billing Address: Griffin
Endyne Project Number: GI-BL1715	Company: Peter Murray Contact Name/Phone #: 879-7708	Sampler Name: Becca Schuyler Phone #: 879-7708

Lab #	Sample Location	Matrix	GRAB	COMP	Date/Time	Sample Containers No.	Sample Containers Type/Size	Field Results/Remarks	Analysis Required	Sample Preservation	Rush
47774	Supply Well	H_2O	X		6-18 7:05	2	40mL		602	HCL	X
	Duplicate	↓	↓		↓	↓	↓		↓	↓	
	↓										
	DO NOT Rush										
	Duplicate										

Relinquished by: Signature Becca Schuyler	Received by: Signature Tonia M. Chambers	Date/Time 6/18/93 7:50
Relinquished by: Signature	Received by: Signature	Date/Time

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Metals (Specify)	21	EPA 624	26	EPA 8270 B/N or Acid
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	EPA 625 B/N or A	27	EPA 8010/8020
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	EPA 418.1	28	EPA 8080 Pest/PCB
4	Nitrite N	9	BOD_5	14	Turbidity	19	BTEX	24	EPA 608 Pest/PCB		
5	Nitrate N	10	Alkalinity	15	Conductivity	20	EPA 601/602	25	EPA 8240		
29	TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)										
30	Other (Specify):										